CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- Before this Amendment: Claims 1-60.

- After this Amendment: Claims 1-60

Original claims: 1-12, 31-38 and 51-54

Withdrawn claims: 11-30, 39-50 and 55-60

Amended claims: None.

New claims: None.

Previously Presented: None.

Claims:

1. **(Original)** A method comprising:

applying at least one of a capitalization rule and a spacing rule to a word obtained from compressed electronic program guide (EPG) data, the compressed EPG data including a plurality of word encoding values and a plurality of character encoding values, wherein each of the capitalization and spacing rules is based on an arrangement, in the compressed EPG data, of one said word encoding value that references the obtained word with respect to at least one of:

one or more said character encoding values; and

one other said word encoding value; and

outputting the obtained word to which at least one of the capitalization rule and the spacing rule was applied.

2. **(Original)** A method as described in claim 1, wherein each said capitalization rule specifies capitalizing a first character included in the obtained word based upon a condition selected from the group consisting of:

if said word encoding value that references the obtained word in the compressed EPG data immediately follows one said character encoding value in the compressed EPG data that indicates an end of a sentence or an end of a previous data string; and

if said word encoding value that references the obtained word in the compressed EPG data is ordered as a first encoding value in a compressed data string included in the compressed EPG data.

3. **(Original)** A method as described in claim 1, wherein the spacing rule is selected

from the group consisting of:

a first spacing rule that specifies if said word encoding value that references the obtained word directly follows another said word encoding value, then a single space is inserted between the obtained word and a word referenced by the other said word encoding value;

a second spacing rule that specifies if said word encoding value that references the obtained word directly precedes one said character encoding value that references a letter or a number, then a space is inserted after the obtained word; and

a third spacing rule that specifies if said word encoding value that references the obtained word directly follows one said character encoding value that references a letter or a number, then a space is inserted before the obtained word.

4. (Original) One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 1.

5. (Original) A method comprising:

decompressing compressed electronic program guide (EPG) data that includes a plurality of word encoding values and a plurality of character encoding values, the compressed EPG data being decompressed by:

comparing one or more of the plurality of word encoding values with word encoding values in a word table to find a match, wherein:

each said word encoding value in the word table references a word included in the word table; and

for each said match, obtaining the word referenced by the matching word

encoding value from the word table;

applying at least one of a capitalization rule and a spacing rule to the obtained word that is based on an arrangement, in the compressed EPG data, of one said word encoding value that references the obtained word with respect to at least one of:

one or more said character encoding values; and

one other said word encoding value; and

outputting the obtained word to which at least one of the capitalization rule and the spacing rule was applied.

6. **(Original)** A method as described in claim 5, wherein each said capitalization rule specifies capitalizing a first character included in the obtained word based upon a condition selected from the group consisting of:

if said word encoding value that references the obtained word in the compressed EPG data immediately follows one said character encoding value in the compressed EPG data that indicates an end of a sentence or an end of a previous data string; and

if said word encoding value that references the obtained word in the compressed EPG data is ordered as a first encoding value in a compressed data string included in the compressed EPG data.

7. **(Original)** A method as described in claim 5, wherein the spacing rule is selected from the group consisting of:

a first spacing rule that specifies if said word encoding value that references the obtained word in the compressed EPG data directly follows another said word encoding value in the

compressed EPG data, then a single space is inserted between the obtained word and a word referenced by the other said word encoding value;

a second spacing rule that specifies if said word encoding value that references the obtained word in the compressed EPG data directly precedes one said character encoding value in the compressed EPG data that references a letter or a number, then a space is inserted after the obtained word; and

a third spacing rule that specifies if said word encoding value that references the obtained word in the compressed EPG data directly follows one said character encoding value in the compressed EPG data that references a letter or a number, then a space is inserted before the obtained word.

8. (Original) One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 5.

9. (Original) A method comprising:

compressing electronic program guide (EPG) data that includes a plurality of television programs, each said television program having one or more television program characteristics, each said television program characteristic having a value, each said value having one or more characters, the EPG data being compressed by:

comparing the one or more characters of each said value with one or more words in a word table to find a match, wherein each said word in the word table is referenced by a word encoding value in the word table, and for each said match, replacing the matching one or more characters of each said value with the word encoding value in the word table

that references the matching word;

comparing the one or more characters of each said value that do not match any of the words in the word table with one or more characters in a character table to find a match, wherein the character table includes one or more character encoding values, and wherein each said character encoding value references one or more said characters in the character table, and for each said match, replacing the matching one or more characters of each said value with the character encoding value in the character table that references the matching one or more characters; and

applying one or more spacing rules to the EPG data that are based on an arrangement of each said word encoding value with respect to at least one of:

one said character encoding value; and

one other said word encoding value.

10. **(Original)** A method as described in claim 9, further comprising outputting the EPG data to which the one or more spacing rules were applied.

11. **(Original)** A method as described in claim 9, wherein each said spacing rule specifies removal of each said character encoding value from the EPG data that references a space based upon a condition selected from the group consisting of:

the character encoding value that references the space is disposed directly between two said word encoding values;

the character encoding value that references the space directly follows one said word encoding value and directly precedes one said character encoding value that references a letter or

a number in the character table; and

the character encoding value that references the space directly precedes one said word encoding value and directly follows one said character encoding value that references a letter or a number in the character table.

12. (Original) One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 9.

13. (Withdrawn) A method comprising searching for a keyword in compressed electronic program guide (EPG) data that includes a plurality of television programs, each said television program having one or more encoding values, each said encoding value encoding at least a portion of a value that describes a television program characteristic, wherein the searching includes:

comparing the keyword with a plurality of words in a table, wherein the table includes a plurality of word encoding values, each said word encoding value referencing one said word in the table, and each said word encoding value having a matching predetermined amount of bits, one to another, wherein:

when the keyword matches one of the plurality of words in the table, then examining encoding values in the compressed EPG data that have the matching predetermined amount of bits to find the keyword; and

when the keyword does not match any of the plurality of words in the table, then examining encoding values in the compressed EPG data that do not have the matching predetermined amount of bits to find the keyword; and

when one said value which describes one said television program characteristic that includes the keyword is found, outputting the one said value that includes the keyword.

14. **(Withdrawn)** A method as described in claim 13, wherein the encoding values that do not have the matching predetermined amount of bits are character encoding values.

15. **(Withdrawn)** A method as described in claim 13, wherein:

the encoding values that do not have the matching predetermined amount of bits are character encoding values; and

the character encoding values have a second matching predetermined amount of bits, one to another, that do not match the matching predetermined amount of bits of the word encoding values.

16. **(Withdrawn)** A method as described in claim 13, wherein:

encoding values that do not have the predetermined amount of bits are character encoding values;

each of the character encoding values have eight bits; and

each of the word encoding values have twelve bits.

17. **(Withdrawn)** One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 13.

18. (Withdrawn) A method comprising:

analyzing EPG data that includes a plurality of television programs, each said television program having one or more television program characteristics, each said television program characteristic having a value, wherein one of the television program characteristics is a program title;

assigning an event identifier, based on the analyzing, to each said television program, wherein the event identifier includes:

a bin identifier selected from a plurality of bin identifiers based on a portion of the value of the program title of a corresponding said television program; and

a unique identifier that is unique for each said television program, wherein the unique identifier has a bin identifier that matches at least one other bin identifier assigned to at least one other said television program; and

outputting the EPG data that has the assigned event identifiers.

19. (Withdrawn) A method as described in claim 18, wherein the event identifiers are assigned for a predetermined amount of time that corresponds to an amount of broadcast time described by the EPG data.

20. (Withdrawn) A method as described in claim 18, wherein the event identifier references the value of the corresponding said television program.

21. (Withdrawn) A method as described in claim 18, wherein each of the plurality of bin identifiers are predefined to correspond to a unique range of characters of the portion of the

value of the program title.

22. **(Withdrawn)** A method as described in claim 18, wherein the event identifier is described using eighteen bits, and includes:

> six bits thereof utilized by the corresponding said bin identifier; and

> twelve bits thereof utilized by the corresponding said unique identifier.

23. **(Withdrawn)** One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 18.

24. **(Withdrawn)** A method comprising:

searching EPG data that includes a plurality of television programs, each said television program having a corresponding event identifier that identifies one or more values that describe respective one or more television program characteristics, wherein each said event identifier includes a bin identifier and a unique identifier, the EPG data is searched for the one or more values of a desired said television program by utilizing the event identifier that corresponds to the desired said television program, the searching being performed by:

> locating a bin that matches the bin identifier included in the event identifier; and

> matching a unique identifier included in the event identifier with a unique identifier included in the located bin, wherein the matching unique identifier in the located bin maps to the one or more values of the desired said television program; and

> outputting the mapped one or more values.

25. (Withdrawn) An method as described in claim 24, wherein the event identifiers are assigned for a predetermined amount of time that corresponds to an amount of broadcast time described by the EPG data.

26. (Withdrawn) A method as described in claim 24, wherein the bin is located from a plurality of bins, each said bin having one or more unique identifiers.

27. (Withdrawn) A method as described in claim 24, wherein:

the bin is located from a plurality of bins, each said bin having one or more unique identifiers; and

each bin corresponds to a unique range of characters.

28. (Withdrawn) A method as described in claim 24, wherein the event identifier is described using eighteen bits, and includes:

six bits thereof utilized by the corresponding said bin identifier; and

twelve bits thereof utilized by the corresponding said unique identifier.

29. (Withdrawn) A method as described in claim 24, further comprising:

receiving the EPG data; and

storing the unique identifier included in the event identifier in one of a plurality of bins, wherein the unique identifier is stored in the bin that matches the bin identifier included in the corresponding event identifier.

30.   **(Withdrawn)** One or more computer-readable media comprising computer-executable instructions that, when executed, perform the method as recited in claim 24.

31. **(Original)** A client device comprising:

a processor; and

a memory configured to maintain:

compressed electronic program guide (EPG) data that includes a plurality of word encoding values and a plurality of character encoding values; and

an EPG application that is executable on the processor to:

apply at least one of a capitalization rule and a spacing rule to a word obtained from the compressed EPG data that is based on an arrangement of one said word encoding value that references the obtained word with respect to at least one of:

one or more said character encoding values; and

one other said word encoding value; and

output the obtained word to which at least one of the capitalization rule and the spacing rule was applied.

32. **(Original)** A client device as described in claim 31, wherein each said capitalization rule specifies capitalizing a first character included in the obtained word based upon a condition selected from the group consisting of:

if said word encoding value that references the obtained word in the compressed EPG data immediately follows one said character encoding value in the compressed EPG data that

indicates an end of a sentence or an end of a previous data string; and

if said word encoding value that references the obtained word in the compressed EPG data is ordered as a first encoding value in a compressed data string included in the compressed EPG data.

33. **(Original)** A client device as described in claim 31, wherein the spacing rule is selected from the group consisting of:

a first spacing rule that specifies if said word encoding value that references the obtained word directly follows another said word encoding value, then a single space is inserted between the obtained word and a word referenced by the other said word encoding value;

a second spacing rule that specifies if said word encoding value that references the obtained word directly precedes one said character encoding value that references a letter or a number, then a space is inserted after the obtained word; and

a third spacing rule that specifies if said word encoding value that references the obtained word directly follows one said character encoding value in the EPG data that references a letter or a number, then a space is inserted before the obtained word.

34. **(Original)** A client device as described in claim 31, further comprising a tuner for receiving the compressed EPG data that is broadcast over a broadcast network.

35. **(Original)** A client device comprising:

a processor; and

a memory configured to maintain:

compressed electronic program guide (EPG) data that includes a plurality of word encoding values and a plurality of character encoding values;

a word table including one or more words and one or more word encoding values, each said word is referenced by one said word encoding value;

a character table including one or more characters and one or more character encoding values, wherein each said character encoding value references one or more said characters; and

an EPG application that is executable on the processor to decompress the compressed electronic program guide (EPG) data by:

comparing one or more of the plurality of word encoding values with the one or more word encoding values in the table to find a match, and for each said match, obtaining the word referenced by the matching word encoding value from the table;

applying at least one of a capitalization rule and a spacing rule to the obtained word that is based on an arrangement, in the compressed EPG data, of one said word encoding value that references the obtained word with respect to at least one of:

one or more said character encoding values; and

one other said word encoding value; and

outputting the obtained word to which at least one of the capitalization rule and the spacing rule was applied.

36. **(Original)** A client device as described in claim 35, wherein each said capitalization

rule specifies capitalizing a first character included in the obtained word based upon a condition selected from the group consisting of:

if said word encoding value that references the obtained word in the compressed EPG data immediately follows one said character encoding value in the compressed EPG data that indicates an end of a sentence or an end of a previous data string; and

if said word encoding value that references the obtained word in the compressed EPG data is ordered as a first encoding value in a compressed data string included in the compressed EPG data.

37. **(Original)** A client device as described in claim 35, wherein the spacing rule is selected from the group consisting of:

a first spacing rule that specifies if said word encoding value that references the obtained word in the compressed EPG data directly follows another said word encoding value in the compressed EPG data, then a single space is inserted between the obtained word and a word referenced by the other said word encoding value;

a second spacing rule that specifies if said word encoding value that references the obtained word in the compressed EPG data directly precedes one said character encoding value in the compressed EPG data that references a letter or a number, then a space is inserted after the obtained word; and

a third spacing rule that specifies if said word encoding value that references the obtained word in the compressed EPG data directly follows one said character encoding value in the compressed EPG data that references a letter or a number, then a space is inserted before the obtained word.

38. (Original) A client device as described in claim 35, further comprising a tuner for receiving the compressed EPG data that is broadcast over a broadcast network.

39. (Withdrawn) A client device comprising:

a processor; and

a memory configured to maintain:

a word table that includes a plurality of word encoding values and a plurality of words, each said word encoding value referencing one said word, each said word encoding value having a matching predetermined amount of bits, one to another;

compressed electronic program guide (EPG) data that includes a plurality of television programs, each said television program having one or more encoding values, each said encoding value encoding at least a portion of a value that describes a television program characteristic of the television program; and

a search routine that is executable on the processor to:

compare a keyword with the plurality of words in the word table, wherein:

when the keyword matches one of the plurality of words in the word table, then examine to find the keyword the encoding values in the compressed EPG data that have the predetermined amount of bits; and

when the keyword does not match any of the plurality of words in the word table, then examine to find the keyword the encoding values in the compressed EPG data that do not have the predetermined amount of bits; and

when one said value which describes one said television program characteristic that includes the keyword is found, outputting the one said value.

40. **(Withdrawn)** A client device as described in claim 39, wherein encoding values that do not have the matching predetermined amount of bits are character encoding values.

41. **(Withdrawn)** A client device as described in claim 39, wherein:

the encoding values that do not have the matching predetermined amount of bits are character encoding values; and

the character encoding values have a second matching predetermined amount of bits, one to another, that do not match the matching predetermined amount of bits of the word encoding values.

42. **(Withdrawn)** A client device as described in claim 39, wherein:

encoding values that do not have the predetermined amount of bits are character encoding values;

each of the character encoding values have eight bits; and

each of the word encoding values have twelve bits.

43. **(Withdrawn)** A client device as described in claim 39, further comprising a tuner for receiving the compressed EPG data that is broadcast over a broadcast network.

44. **(Withdrawn)** A client device comprising:

a processor; and

a memory configured to maintain:

EPG data that includes a plurality of television programs, each said television program having a corresponding event identifier that identifies one or more values that describe respective one or more television program characteristics, wherein each said event identifier includes a bin identifier and a unique identifier; and

an EPG application that is executable on the processor to:

search for the one or more values of a desired said television program in the EPG data utilizing the event identifier that corresponds to the desired said television program by:

locating a bin that matches the bin identifier included in the event identifier; and

matching a unique identifier included in the event identifier with a unique identifier included in the located bin, wherein the matching unique identifier in the located bin maps to the one or more values of the desired said television program; and

output the mapped one or more values.

45. (Withdrawn) A client device as described in claim 44, wherein the event identifiers are assigned for a predetermined amount of time that corresponds to an amount of broadcast time described by the EPG data.

46. (Withdrawn) A client device as described in claim 44, wherein the bin is located

from a plurality of bins, each said bin having one or more unique identifiers.

47. **(Withdrawn)** A client device as described in claim 44, wherein:

the bin is located from a plurality of bins, each said bin having one or more unique identifiers; and

each bin corresponds to a unique range of characters.

48. **(Withdrawn)** A client device as described in claim 44, wherein the event identifier is described using eighteen bits, and includes:

six bits thereof utilized by the corresponding said bin identifier; and

twelve bits thereof utilized by the corresponding said unique identifier.

49. **(Withdrawn)** A client device as described in claim 44, further comprising:

receiving the EPG data; and

storing the unique identifier included in the event identifier in one of a plurality of bins, wherein the unique identifier is stored in the bin that matches the bin identifier included in the corresponding event identifier.

50. **(Withdrawn)** A client device as described in claim 44, further comprising a tuner for receiving the EPG data that is broadcast over a broadcast network.

51. **(Original)** An electronic program guide (EPG) server comprising:

a processor; and

a memory configured to maintain:

EPG data that includes a plurality of television programs, each television program having one or more television program characteristics, each television program characteristic having a value, each said value having one or more characters;

a word table including one or more words and one or more word encoding values, each said word encoding value references one said word;

a character table including one or more characters and one or more character encoding values, wherein each said character encoding value references one or more said characters in the character table; and

an EPG application that is executable on the processor to:

compare the one or more characters of each said value with the one or more words in the word table to find a match, and for each said match, replacing the matching one or more characters of each said value with the word encoding value in the word table that references the matching word;

compare the one or more characters of each said value that do not match any of the words in the word table with the one or more characters in the character table to find a match, and for each said match, replacing the matching one or more characters of each said value with the character encoding value in the character table that references the matching one or more characters; and

apply one or more spacing rules to the EPG data that are based on an arrangement of each said word encoding value with respect to at least one of:

one said character encoding value; and

one other said word encoding value.

52. (Original) An EPG server as described in claim 51, wherein the EPG application is executable on the processor to output the EPG data to which the spacing rule was applied.

53. (Original) An EPG server as described in claim 51, wherein each said spacing rule specifies removal of each said character encoding value from the EPG data that references a space based upon a condition selected from the group consisting of:

the character encoding value that references the space is disposed directly between two said word encoding values;

the character encoding value that references the space directly follows one said word encoding value and directly precedes one said character encoding value that references a letter or a number in the character table; and

the character encoding value that references the space directly precedes one said word encoding value and directly follows one said character encoding value that references a letter or a number in the character table.

54. (Original) An EPG server as described in claim 51, wherein the EPG server further comprises a broadcast transmitter that is configured to broadcast the EPG data to which the one or more spacing rules were applied over a broadcast network.

55. (Withdrawn) An EPG server comprising:

a processor; and

a memory configured to maintain:

EPG data that includes a plurality of television programs, each said television

program having one or more television program characteristics, each said television program characteristic having a value, wherein one of the television program characteristics is a program title; and

an EPG application that is executable on the processor to:

assign an event identifier to each said television program, wherein the event identifier includes:

a bin identifier selected from a plurality of bin identifiers based on a portion of the value of the program title of a corresponding said television program; and

a unique identifier that is unique for each said television program that has a bin identifier that matches at least one other bin identifier assigned to at least one other said television program; and

output the EPG data having the assigned event identifiers.

56. **(Withdrawn)** An EPG server as described in claim 55, wherein the event identifiers are assigned for a predetermined amount of time that corresponds to an amount of broadcast time described by the EPG data.

57. **(Withdrawn)** An EPG server as described in claim 55, wherein the event identifier references the value of the corresponding said television program.

58. **(Withdrawn)** An EPG server as described in claim 55, wherein each of the plurality of bin identifiers are predefined to correspond to a unique range of characters of the portion of

the value of the program title.

59. (**Withdrawn**) An EPG server as described in claim 55, wherein the event identifier is described using eighteen bits, and includes:

six bits thereof utilized by the corresponding said bin identifier; and

twelve bits thereof utilized by the corresponding said unique identifier.

60. (**Withdrawn**) An EPG server as described in claim 55, wherein the EPG server further comprises a broadcast transmitter that is configured to broadcast the output EPG data over a broadcast network.